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EDUCATION:

New York University Medical School 1976 - 1979	M.S.-Ph.D. Cell & Molecular Biology, Dr. Alexander Tzagoloff, Thesis Advisor PhD Thesis; Molecular-genetic analysis of yeast mitochondrial DNA
Fordham University 1972 - 1976	B.S. Biology, cum Laude, in Cursu Honorum Dr. Ruth Witkus, Sr. Thesis Mentor

APPOINTMENTS:

1991 - present	Carroll & Milton Petrie Professor Director of Graduate Studies New York University, Department of Biology Field: Plant Molecular-Genetics
1990 - 1991	Associate Professor & Associate Dean of Postdoctoral Fellows Rockefeller University, Laboratory of Plant Molecular Biology Field: Plant Molecular Biology
1983 - 1989	Assistant Professor Rockefeller University,Laboratory of Plant Molecular Biology Field: Plant Molecular Biology
1980 - 1983	NIH Postdoctoral Fellow, Rockefeller University Field: Plant Molecular Biology Advisor: N.H. Chua
1979 - 1980	Postdoctoral Research Associate, Columbia University Field: yeast mitochondrial molecular-genetics Advisor: A. Tzagoloff
1976 - 1979	NIH Predoctoral Fellow New York University Medical School Field: yeast mitochondrial molecular genetics Advisor: A. Tzagoloff

HONORS AND PROFESSIONAL ACTIVITIES:

Carroll and Milton Petrie Chair in Biology, NYU 1996- present
Herbert and Margaret Sokol Award in the Sciences, NYU Dec. 1996
North American Arabidopsis Steering Committee, Co-chair 1995-1996, Member 1994-1997
Advisory Board, Arabidopsis Stock Center, 1997-2000
International Society of Plant Molecular Biology, Board Member 1996-2000
Associate Editor, Plant Physiology 1992-1999
Editorial Advisory Board, The Plant Journal 1991-1999
Editorial Board; Current Opinions in Plant Biology, 1998-2000
New York Botanical Garden, International Advisory Committee for Systematic Botany, 1995-1999
White House, Office of Science and Technology Forum on Health, Safety & Food for America, Panelist, Nov. 1994
Italian Government CNR Fellow, Research Advances for Innovations in Agriculture, Universita di Roma, La Sapienza, May-July, 1995
Organizer NATO-Advanced Study Institute on Plant Molecular Biology, Spain. May 1993

PUBLICATIONS:

1. Coruzzi, G., Trembath, M.K., and Tzagoloff, A. (1978) Assembly of the Mitochondrial membrane system: mutations in the pho2 locus of the mitochondrial genome of *Saccharomyces cerevisiae*. **Eur. J. Biochem.** 92: 279-287.

2. Coruzzi, G., Trembath, M.K., and Tzagoloff, A. (1979) Isolation of mitochondrial and nuclear mutants of *Saccharomyces cerevisiae* with specific defects in mitochondrial functions. **Methods in Enzymology.** Vol. LVV: 95-106.

3. Macino, G., Coruzzi, G., Nobrega, F., Li, M., and Tzagoloff, A. (1980) The use of the UGA terminator as a tryptophan codon in yeast mitochondria. **Proc. Natl. Acad. Sci.** USA 76: 3784-3785.

4. Coruzzi, G., and Tzagoloff, A. (1980) Assembly of the mitochondrial membrane system: DNA sequence of subunit 2 of yeast cytochrome oxidase. **J. Biol. Chem.** 254: 9324-9330.

5. Berlani, R.E., Bonitz, S.B., Coruzzi, G., Nobrega, M., and Tzagoloff, A. (1980) Transfer RNA genes in the cap-oxi 1 region of yeast mitochondrial DNA. **Nuc. Acids Res.** 8: 5017-5030.

6. Bonitz, S.G., Berlani, R.E., Coruzzi, G., Li, M., Nobrega, F.G., Nobrega, M., Thalenfeld, B.E., Tzagoloff, A., and Macino, G. (1980) Codon recognition rules in yeast mitochondria. **Proc. Natl. Acad. Sci. USA** 77: 3167-3170.

7. Bonitz, S.G., Coruzzi, G., Thalenfeld, B.E., Tzagoloff, A., and Macino, G. (1980) Assembly of the mitochondrial membrane system: physical map of the oxi 3 locus of yeast mitochondrial DNA. **J. Biol. Chem** 255: 11922-11926.

8. Bonitz, S.G., Coruzzi, G., Thalenfeld, B.E., Tzagoloff, A., and Macino, G. (1980) Assembly of the mitochondrial membrane system: structure and nucleotide sequence of the gene coding for subunit 1 of yeast cytochrome oxidase. **J. Biol. Chem.** 255: 11927-11941.

9. Tzagoloff, A., Bonitz, S.B., Coruzzi, G., Thalenfeld, B.E., and Macino, G. (1980) Yeast mitochondrial cytochrome oxidase genes. **In: The Organization and Expression of the Mitochondrial Genome.** (C. Saccone and A.M. Kroon, eds.) North Holland Press.

10. Coruzzi, G. and Tzagoloff, A. (1980) Assembly of the mitochondrial membrane system: nuclear suppression of a cytochrome b mutation in yeast mitochondrial DNA. **Genetics** 95: 891-903.

11. Coruzzi, G., Bonitz, S.B., and Thalenfeld, B.E. (1980) Organization and structure of genes in yeast mitochondrial DNA. **In: VIth International Fermentation Symposium.** Permagon Press, N.Y. pp. 157-164.

12. Coruzzi, G., Bonitz, S.B., Thalenfeld, B.E., and Tzagoloff, A. (1981) Assembly of the mitochondrial membrane system. Analysis of the nucleotide sequence and transcripts in the oxi 1 region of yeast mitochondrial DNA. **J. Biol. Chem.** 256: 12780-12787.

13. Coruzzi, G., Broglie, R., Cashmore, A., and Chua, N.H. (1983) Nucleotide sequences of two pea cDNA clones encoding the small subunit of Ribulose 1,5 bisphosphate carboxylase and the major chlorophyll a/b binding thylakoid polypeptide. **J. Biol. Chem.** 258: 1399-1402

14. Broglie, R., Coruzzi, G., Lamppa, G., Keith, B., and Chua, N.H. (1983) Structural analysis of nuclear genes coding for the precursor to the small subunit of wheat ribulose-1,5-bisphosphate carboxylase. **Biotechnology** 1: 55-61.

15. Coruzzi, G., Broglie, R., Lamppa, G., Chua, N.H. (1983) Expression of nuclear genes encoding the small subunit of ribulose-1,5-bisphosphate carboxylase. **In: Structure and function of Plant Genomes** O.C. Ciferri, and L. Dure, III, eds) Plenum Press. pp. 47-59.

16. Broglie, R., Coruzzi, G., Keith, B., and Chua, N.H. (1984) Molecular biology of C_4 photosynthesis in Zea mays: Differential localization of proteins and mRNAs in the two leaf cell types. **Plant Molecular Biology** 3: 431-444.

17. Broglie, R., Coruzzi, G., and Chua, N.H. (1984) Differential expression of genes encoding polypeptides involved in C4 photosynthesis. **In: Chloroplast Biogenesis**, (Ellis, R.J., ed.), Cambridge University Press, pp. 51-64.

18. Broglie, R., Coruzzi, G., Lamppa, G., Keith, B., and Chua, N.H. (1984) Monocot and dicot genes encoding the small subunit of ribulose 1,5 bisphosphate carboxylase: structural analysis and gene expression. **Stadler Symp.** 15: 59-71.

19. Broglie, R., Coruzzi, G., Fraley, R.T., Rogers, S.G., Horsch, R.B., Niedermeyer, J.G., Fink, C.L., Flick, J.S., and Chua, N.H. (1984) Light-regulated expression of a pea ribulose-1,5 bisphosphate carboxylase small subunit gene in transformed plant cells. **Science** 224: 838-843.

20. Coruzzi, G., Broglie, R., Edwards, C., and Chua, N.H. (1984) Tissue-specific and light-dependent expression of a nuclear gene encoding the small subunit of ribulose-1,5-bisphosphate carboxylase. **EMBO J.** 3:1671- 1679.

21. Broglie, R. and Coruzzi, G.M (1985) Expression of a pea gene encoding the small subunit of ribulose-1,5-bisphosphate carboxylase in vivo and in transformed plant cells. **In: Recent Advances in Photosynthesis Research**. D. Longstreth Ed., pp.31-35.

22. Fluhr, R., Moses, P., Morelli, G., Coruzzi, G., and Chua, N.H. (1986) Expression dynamics of the pea rbcS multigene family and organ distribution of the transcripts. **EMBO J.** 5, pp. 2063-2071.

23. Tingey, S.V., Walker, E., and Coruzzi G.M. (1987) Glutamine synthetase genes of pea encode distinct polypeptides which are differentially expressed in leaves, roots and nodules. **EMBO J.** 6: 1-9.

24. Tingey, S.V., and Coruzzi, G. (1987) Glutamine synthetase of *Nicotiana plumbaginifolia*: cloning and *in vivo* expression. **Plant Physiol.** 84: 366-373.

25. Coruzzi, G.M., Tingey, S.V., Walker E.L., Edwards J.W., and Tsai F.Y. (1987) Molecular analysis of glutamine synthetase genes in higher plants. In: Plant Gene Systems and their Biology. **UCLA Symposia on Molecular and Cellular Biology**, Vol 62. Eds. L. McIntosh and J. Key. Alan R. Liss Inc., New York. pp. 217-226.

26. Tingey, S.V., Tsai F.Y., Edwards J.W., Walker E.L. and Coruzzi G.M. (1988) Chloroplast and cytosolic glutamine synthetase are encoded by homologous nuclear genes which are differentially expressed *in vivo*. **J. Biol. Chem.** 263: 9651-9657.

27. Coruzzi, G.M., Edwards, J.W., Tingey, S.T., Tsai, F.Y., and Walker, E.L. (1988) Glutamine synthetase: Molecular evolution of an eclectic multi-gene family. In: The Molecular Basis of Plant Development. **UCLA Symposia on Molecular an Cellular Biology**. New Series Vol. 92, Ed. R. Goldberg, Alan R. Liss Inc., N.Y. pp. 223-232.

28. Edwards J.W. and Coruzzi G.M. (1989) Photorespiration and light act in concert to regulate the expression of the nuclear gene for chloroplast glutamine synthetase. **The Plant Cell** 1: 241-248.

29. Walker E.L. and Coruzzi G.M. (1989) Developmentally regulated expression of the gene family for cytosolic glutamine synthetase in *Pisum sativum* **Plant Physiol.** 91, 702 - 708.

30. Tsai F.Y. and Coruzzi G.M. (1990) Dark-induced and organ-specific expression of two asparagine synthetase genes in *Pisum sativum*. **EMBO J.** 9: 323-332.

31. Edwards, J.W., Walker, E.L., and Coruzzi, G.M. (1990) Cell-specific expression in transgenic plants reveals non-overlapping roles for chloroplast and cytosolic glutamine synthetase. **Proc. Nat'l Acad. Sci.** 87: 3459-3463.

32. Edwards J.W. and Coruzzi G.M. (1990) "Cell-specific gene expression in plants." **Ann. Rev. Genet.** Vol. 24, Chpt. 12, p. 275-303.

33. Coruzzi, G.M. (1991) "Molecular approaches to the study of amino biosynthesis in higher plants". **Plant Science** 74, 145-155.

34. Tsai, F.-Y. and Coruzzi, G.M. (1991) Light represses the transcription of plant asparagine synthetase genes in photosynthetic and non-photosynthetic organs of plants. **Mol. Cell. Biol.** 11; 4966-4972.

35. Brears, T. and Coruzzi G.M. (1991) "The molecular biology of amino acid biosynthesis in plants. "In: **Genetic Engineering, Principles and Methods.** Ed. J. Setlow, Vol. 13, 221-236.

36. McGrath,R.B. and Coruzzi, G.M. (1991) Mninreview: A gene network controlling glutamine and asparagine biosynthesis in plants. **The Plant Journal** 1, 275-280.

37. Brears,T., Walker, E.L., Coruzzi, G.M. (1991) "A promoter sequence involved in the cell-specific expression of the pea glutamine synthetase GS3A gene in organs of transgenic tobacco and alfalfa. **The Plant Journal** 1; 235-244.

38. Tsai, F.-Y. and Coruzzi, G.M. (1991) "Transgenic plants for studying genes encoding amino acid biosynthetic enzymes." In: **Transgenic Plants**, Eds. S.D. Kung and R. Wu., Academic Press, NY (p. 181 - 194).

39. Coruzzi,G., Edwards,J., Walker,E., Tsai,F., Brears,T. (1992) "Regulation of genes along a common nitrogen metabolic pathway." In: **NATO/ASI Plant Molecular Biology 2.** Eds. B.A. Larkins and R. Herrmann. Plenum Press; pp. 139-146.

40. Coruzzi,G. (1992) "A molecular approach to the analysis of the regulation of glutamine and asparagine biosynthesis in plants." In: **Biosynthesis and molecular regulation of amino acids in plants.** Eds. B. Singh, H. Flores, J. Shannon, American Society of Plant Physiology Series. Vol 7. pp. 52-58.

41. Tjaden, G. and Coruzzi,G. (1993) "Glutamine and Asparagine biosynthesis: Regulation of genes for enzymes along a common nitrogen-metabolic pathway." In: **Control of Plant Gene Expression.** Ed. D.P. Verma. CRC Press, London. pp. 459-470.

42. Brears, T., Liu, C., Knight, T., & Coruzzi, G. (1993) "Ectopic overexpression of asparagine synthetase in transgenic tobacco." **Plant Physiol.** 103; 1285-1290.

43. Coruzzi, G., Coschigano, K., Lam, H.M., Oliveira, R., Peng, S., & Schultz, C. (1994) "Molecular genetics of nitrogen assimilation into amino acids in Arabidopsis thaliana". In: **VIIth NATO/ASI on Plant Molecular Biology**; Molecular-genetic analysis of plant development and metabolism, Eds. P. Puigdomenech, G. Coruzzi. Springer-Verlag, pp. 141-150.

44. Tjaden, G. and Coruzzi, G. (1994) "A novel AT-rich DNA binding protein that combines an HMGI-like DNA-binding domain with a putative transcription domain". **The Plant Cell**, 6; 107-118.

45. Lam HM, Peng S, and Coruzzi G. (1994) "Metabolic regulation of the gene encoding glutamine-dependent asparagine synthetase in Arabidopsis thaliana." **Plant Physiol.** 106, 1347-1357.

46. Schultz, C and Coruzzi G (1995) "The aspartate aminotransferase gene family in Arabidopsis encodes isoenzymes localized to three distinct subcellular compartments." **The Plant Journal** 7, 61-75.

47. Lam HM, Coschigano K., Schultz C., Melo-Oliveira R., Tjaden G., Oliveria I., Ngai N, Hsieh M, Coruzzi G (1995) "Use of Arabidopsis mutants and genes to study amide amino acid biosynthesis." **Plant Cell** Vol. 7, 887-898.

48. Walker E.L., Weeden, N., Taylor, C, Green, P. and Coruzzi, G . (1995) "Molecular evolution of duplicate copies of genes encoding cytosolic glutamine synthetase in *Pisum sativum*." **Plant Molecular Biology** 29, 1111-1125.

49. Tjaden, G and Coruzzi, G. (1995) " Cis-elements and trans-factors affecting the expression of a non- photosynthetic light-regulated genes for chloroplast glutamine synthetase." **Plant Physiol.** 108, 1109-1117.

50. Lam HM, Coschigano K, Oliveira I, Melo-Oliveira R, and Coruzzi G (1996) The molecular-genetics of nitrogen assimilation into amino acids in higher plants. **Annu. Rev. Plant Physiol. Plant Mol. Biol.** 47; 569-593.

51. Melo-Oliveira R, Oliveira I, and Coruzzi G (1996) Arabidopsis mutant analysis and gene regulation define a nonredundant role for glutamate dehydrogenase in nitrogen assimilation. **Proc. Nat'l Acad. Sci.** 93,4718-4723.

52. Oliveira I, Lam H, Coschigano K, Melo-Oliveira R, and Coruzzi G (1997) Molecular-genetic dissection of ammonia assimilation in Arabidopsis thaliana. **Plant Physiol. and Biochem.** 35, 185-198.

53. Ngai N, Tsai F.Y. and Coruzzi G.M. (1997) Light-induced transcriptional repression of the AS1 gene: Identification of cis- elements and transfactors. **Plant Journal.** 12, 1021-1034.

54. Ngai, N and Coruzzi, G. (1998) Dissecting light repression of the asparagine synthetase gene in Arabdiopsis. In NATO ASI, **"Cellular Integration of Signaling Pathways in Plant Development"**. Eds. LoSchiavo, N. Raikhel, R. Last and G. Morelli. Springer Verlag. pp. 147-157.

55. Coschigano K, Melo-Oliveira R, and Coruzzi G (1998) Arabidopsis mutants and genes for distinct ferredoxin-dependent glutamate synthase isoforms: Implications for photorespiration and primary nitrogen assimilation. **Plant Cell.** Vol. 10, 741-752.

56. Schultz C, Hsu M, Meisak B and Coruzzi G (1998) Arabidopsis mutants define an in vivo role for isoenzymes of aspartate aminotransferase in plant nitrogen assimilation **Genetics.** 149, 491-499.

57. Lam HM, Hsieh MH, and Coruzzi GM (1998) Reciprocally regulated genes for distinct isoenzymes of asparagine synthetase in Arabidopsis thaliana. **Plant Journal** , 16, 345-353.

58. Hsieh MH, Lam HM, van de Loo F and Coruzzi G (1998). "A PII like protein in Arabidopsis: Putative role in nitrogen sensing", **Proc. Nat'l Acad. Sci. USA**. 95, 13965-13970.

59. Lam HM, Chiu J, Hsieh MH, Meisel L, Oliveira I, Shin M and Coruzzi G (1998) "Glutamate receptor genes in plants" **Nature**, 396, 125-126.

60. Chiu J, DeSalle R, Lam HM, Meisel L and Coruzzi G (1999) "Molecular Evolution of glutamate receptors: A primitive signaling mechanism that existed before plants and animals diverged." **Molecular Biology and Evolution.** (In Press)

61. Oliveira I and Coruzzi G (1999) Reciprocal regulation by carbon and nitrogen metabolites of genes for glutamine synthetase in plants. **Plant Physiol.** (In Press).

62. Oliveira I, Brears T, Knight T, Peterson RB, Clark A and Coruzzi G (1999) "Photorespiration is limiting to nitrogen use efficiency" **Nature Biotech.** (submitted).

63. Melo-Oliveira R and Coruzzi G (1999) "The gdh1 mutant of Arabidopsis defines a role for gdh in photorespiration in C3 plants" **Plant Journal** (submitted).

GRANT PANEL MEMBERSHIP
NIH, Molecular biology, Oct. 1998
NIH , Molecular cytology, March 1998
NSF-Arabidopsis Genome project, April 10, 1996
NSF- Arabidopsis Stock Center, Site visit Nov. 7-8, 1996
NIH Molecular Cytology, March 7-8, 1996
NIH. Molecular Cytology, Oct. 1994
NIH; Molecular Cytology June 1993
NSF; Biochemical Genetics, Oct. 1993

INVITED LECTURES AT MEETINGS (last five years):
PBMB Symposium; Metabolic Netowrking in plants, Iowa State, April 1999
Gordon Conference: Plant Molecular Biology, New Hamphsire College July 1998
9th International Congress on Plant Tissue & Cell Culture; Jerusalem June 1998
Keystone Symposia, Plant Cell Biology, Taos NM, Jan 1998
Banbury Conference CSH, Molecular-genetic approaches to transport in plants, Dec 1997
9th International Congress on Plant Tissue & Cell Culture; Jerusalem June 1998
International Society of Plant Molecular Biology Meeting, Singapore Sept. 1997
8th International Meeting on Arabidopsis Research, Wisconsin, June 1997
4th International Symposium of Nitrogen assimilation: Molecular & Genetic Aspects, May 1997
NATO/ASI "Cellular integration of signaling pathways in plants, Italy May 1997
Cold Spring Harbor Course on Arabidopsis, June 30, 1997
First International Symposium on Information Processing Systems in Plants. Davis March 1997.
Gordon Conference, Plant Biological Regulatory Mechanisms, New Hampshire July 1996
Gordon Conference; CO2 Fixation and Metabolism in Plants, New Hampshire July 1996
International Conference of: Isoenzymes and molecular markers in plants: Como, Italy May 1996
6th International Conference on Arabidopsis Research, (Co-organizer), Wisconsin, June 1995
Keystone Synposia on Plant Cell Biology, (Speaker and Chair) Taos, NM Jan 1995
Plant Genome III, 1995
4th International Congress on Plant Molecular Biology, Amsterdam (Speaker and chair), June 1994
Gordon Conference; Regulatory Mechanisms in Plants, (Speaker and Chair), NH, July 1994
Cold Spring Harbor Course on Arabidopsis Molecular Genetics, (Lecturer), July 1994
Workshop on Plant Gene Technology, (Speaker), Cairns, Australia, April 1994
5th International Conference on Arabidopsis Research, (Speaker and Chair), Ohio August 1993
NATO/Advance Study Institute in Plant Molecular Biology (Organizer), Spain 1993
Workshop on Research Needs in Plant Metabolism, (Panelist), Kona, Hawaii 1992
Gordon Conference, Plant Molecular Biology, (Speaker and Chair), New Hampshire 1992
World Congress on Cell and Tissue Culture, (Speaker), Wash DC June 1992
Plant Biochemistry Course, (Lecturer) UCSD June 1992
Seventh Annual Penn State Symposium in Plant Physiology; (Speaker), PA May 1992